

**STANDARDS PRESENTATION  
TO  
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

**PROPOSED STATE STANDARD,  
TITLE 8, CHAPTER 4**

Amend Section 1712 to read as follows:

§1712. ~~Hazards Associated with the Use of~~ Reinforcing Steel and Other Similar Projections.

(a) Scope. This section applies to all work sites and locations where employees work around or over exposed, projecting, reinforcing steel or other similar projections.

(b) Definitions.

~~Caps. Manufactured devices that completely cover exposed ends of reinforcing steel and have flat or mushroomed surface at least twice the diameter of the reinforcing steel they are designed to cover.~~

Job-Built. As used in this section, protective covers and troughs usually constructed at the job-site of wood or other ~~similar~~ materials of equal or greater strength and designed specifically for covering exposed ends of reinforcing steel or other similar projections at a specific job-site.

Protective Covers. Manufactured or job-built apparatus designed to cover exposed ends of reinforcing steel or other similar projections so as to prevent impalement.

Troughs. Manufactured or job-built protective covers designed to cover two or more exposed ends of reinforcing steel or other similar projections so as to prevent impalement, and which meet the applicable requirements in subsection (d). ~~Troughs are long narrow open receptacles, usually boxlike in shape. See Appendix Plate C-25 for an example of a job-built trough.~~

(c) Protection from Reinforcing Steel and Other Similar Projections.

(1) Employees working at grade or at the same surface as exposed protruding reinforcing steel or other similar projections; shall be protected against the hazard of impalement by guarding ~~the~~ all exposed ends that extend up to 6 feet above grade or other work surface, with protective covers, or troughs, ~~or caps~~.

(2) Employees working above grade or any surface and exposed to protruding reinforcing steel or other similar projections shall be protected against the hazard of impalement. Protection shall be provided by:

(A) The use of guardrails, or

(B) Approved fall protection systems meeting the design requirements of Article 24, or

(C) Protective covers as specified in subsection (d).

(3) ~~The use of caps as impalement protection is prohibited for employees working above grade or any surface.~~ Protective covers shall not be used to protect against impalement where the maximum height of fall exposure, to the top of the protective cover, exceeds 7½ feet, unless the protective covers meet the requirement of subsection (d)(4)(D).

(4) ~~Troughs depicted in Appendix Plate C-25 shall not be used as a substitute for engineered or manufactured protective covers when employees are working at heights greater than 6 feet above grade or other working surface.~~

(d) Protective Covers, ~~Troughs and Caps~~ Specifications, Testing and Approval.

(1) Protective covers shall be made of wood, plastic, or other ~~similar~~ materials of equal or greater strength. ~~If protective covers are job-built, they shall be designed as specified by an~~

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~~engineer currently registered in the State of California. A copy of the engineering drawing(s) depicting the job-built protective covers shall be kept at the worksite and made available to the Division upon request. Caps shall not be job-built.~~

~~(2) Protective covers, except for troughs as depicted in Appendix Plate C-25, shall, at the minimum, be capable of withstanding the impact of a 250-pound weight dropped from a height of 10 feet without penetration failure of the cover. Protective covers shall have a minimum 4-inch by 4-inch square surface area, or if round, a minimum diameter of 4½ inches.~~

~~NOTE: This requirement is intended to prevent penetration failure of protective covers impacted at heights up to 7½ feet. Test specifications should be modified when impacts are anticipated from heights greater than 7½ feet.~~

~~(3) Manufactured protective covers shall meet the following requirements:~~

~~(A) Manufactured protective covers shall be approved as provided for in Section 1505 and be legibly marked with the manufacturer's name or logo.~~

~~(B) Manufactured protective covers made before October 1, 2000 shall, at the minimum, be capable of withstanding the impact of a 250-pound weight dropped from a height of 10 feet without penetration failure of the cover.~~

~~(C) Manufactured protective covers made on or after October 1, 2000 shall meet the testing requirements of Section 344.90.~~

~~(4) Job-built protective covers shall meet the following requirements:~~

~~(A) Job-built protective covers shall be designed as specified by an engineer currently registered in the State of California. A copy of the engineering drawing(s) depicting the job-built protective covers shall be kept at the worksite and made available to the Division upon request. EXCEPTION: Job-built troughs as depicted in Appendix Plate C-25 may be used as a substitute for engineered or manufactured protective covers when employees are working at heights not greater than 6 feet above grade or other working surface.~~

~~(3)(B) Job-built wood protective covers and troughs shall be constructed of at least "Standard Grade" Douglas Fir, as graded by either the Western Lumber Grading Rules 94-98, handbook, effective September 1, 1994-1998, published by the Western Wood Products Association, or the Standard No. 17 Grading Rules for West Coast Lumber, handbook, effective September 1, 1991 and revised January 1, 2000, published by the West Coast Lumber Inspection Bureau, which is hereby incorporated by reference.~~

~~(4) Caps shall be made of rigid molded plastic or similar material and be the proper size for the reinforcing steel being covered.~~

~~(5) Manufactured covers and caps shall be approved as provided for in Section 1505 and be legibly marked with the manufacturer's name or logo.~~

~~(C) Job-built protective covers, except for troughs as depicted in Appendix Plate C-25, shall, at the minimum, be capable of withstanding the impact of a 250-pound weight dropped from a height of 10 feet without penetration failure of the cover.~~

~~NOTE: The drop test requirement in subsection (d)(4)(C) applies to protective covers used to prevent employee impalement where the employee is exposed to fall heights of up to 7½ feet.~~

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(D) Drop test specifications for job-built protective covers listed in subsection (d)(4)(C) shall be modified where fall heights greater than 7½ feet are anticipated, to ensure that the protective cover can withstand increased impact loading.

(e) Fall Protection.

Employees shall not be permitted to place or tie reinforcing steel in walls, piers, columns, etc., more than 6 feet above an adjacent surface, unless a personal fall protection system is used in accordance with Section 1670 or other method affording equivalent protection from the hazard of falls from elevated surfaces.

EXCEPTION: Point-to-point horizontal or vertical travel on reinforcing steel up to 24 feet above the surface below providing there are no impalement hazards.

(f) Securing Reinforcing Steel.

(1) Reinforcing steel for walls, piers, columns, and similar vertical structures shall be guyed and supported to prevent collapse.

(A) Guys, supports, and braces shall be installed and removed as directed by a qualified person.

~~(g)~~(2) Wire mesh rolls shall be secured to prevent dangerous recoiling action.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.